

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management



James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

February 25, 1994

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

6

Mr. Ernest Rome
Vice President of Textiles
Asheville Dyeing and Finishing
Post Office Box 337
Swannanoa, North Carolina 28778

Reference: Request for post-closure care plan modification
NCD 070 619 663 . .

Dear Mr. Rome:

This office has received your facility's request to modify the post-closure care plan. Upon review of this request and consultation with Gray Stephens of the Ground Water Unit, your request for the modification is approved effective January 1, 1994. An appropriate replacement page must be submitted to this office within one (1) week of receipt of this approval letter. If you have any questions, please contact Doug Roberts of my staff at (919) 733-2178.

Sincerely,

Daniel P. Bius for

Jerome H. Rhodes, Chief
Hazardous Waste Section

JHR/DLR/mb/4.WP4

cc: William F. Hamner
Daniel L. Bius
Gray Stephens
Douglas L. Roberts

FILE
S
Feb 1994
Division

ASHEVILLE DYEING AND FINISHING

P.O. Box 337 • Swannanoa, N.C. 28778 • Phone 704-298-2280

February 10, 1994

Mr. Jerome Rhodes
Chief, Hazardous Waste Section
Division of Solid Waste Management
Department of Environment, Health
and Natural Resources
Post Office Box 27687
Raleigh, NC 27611-7687

Re: Request Modification to Post-Closure Plan
Asheville Dyeing and Finishing
Swannanoa, North Carolina

Dear Mr. Rhodes:

Asheville Dyeing and Finishing hereby requests a modification to the *Closure/Post-Closure Plan* prepared by Roy F. Weston, Inc. (Weston), dated March 31, 1992, for the tetrachloroethene (PCE) hazardous waste management unit (Unit) at the Asheville Dyeing and Finishing (AD&F) facility located in Swannanoa, North Carolina. This requested modification is generated in response to the November 22, 1993, correspondence from the North Carolina Department of Environment, Health, and Natural Resources, Division of Solid Waste Management (DSWM), Hazardous Waste Section. The primary item requiring modification in the *Post-Closure Plan* is Groundwater Sampling and Analysis Plan in Appendix C of the *Weston Closure/Post-Closure Plan*. The plan should be changed to refer to the February 9, 1994, *Revised Ground Water Sampling and Analysis Plan*.

AD&F requests modification of Weston's March 31, 1992, *Post-Closure Plan*, page 26, Section 3.10.6, second paragraph. The modified paragraph should read as follows:

All post-closure sampling activities will be conducted in accordance with the February 9, 1994 *Revised Ground Water Sampling and Analysis Plan* (SAP) prepared by Aquaterra. Both post-closure and ground water assessment sampling activities will follow the procedures described in the revised SAP.

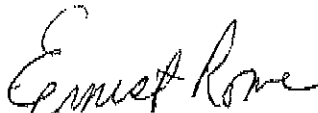
The modification is being requested because AS&F wants to discontinue sampling for semivolatile organic compounds (SVOCs). No SVOCs have been detected in four consecutive sampling events. (See July 1993 Post-Closure Semiannual Ground Water Monitoring Report dated September 24, 1993.) Only 13 ug/l of bis (2-ethylhexyl) phthalate has been detected in a single well (MW-12i) in April 1992, and Aquaterra believes that this compound is probably a sampling relic.

For clarification, if the modification is approved, the following documents will constitute the present *Closure/Post-Closure Plan* for AD&F:

- Weston's March 31, 1992, *Closure/Post-Closure Plan*
- Aquaterra's May 11, 1992 *Addendum of Closure/Post-Closure Plan*
- DSWM's July 8, 1992, *letter approving the Closure and post Closure Plan with modifications*
- Aquaterra's September 2, 1992, *Addendum of Closure/Post-Closure Plan incorporating the modifications*
- Aquaterra's October 27, 1992, *Modification to Post-Closure Plan*
- Aquaterra's February 9, 1994 *Revised Ground Water Sampling and Analysis Plan*
- This document

Please call me at (704) 379-5463 if you have any questions.

Sincerely,



Ernest Rome

Vice-President of Textiles

cc: Jacob Hollander
Steve Pegg
Yvonne Bailey
Kirk Pollard



1

State of North Carolina
Department of Environment, Health, and Natural Resources
512 North Salisbury Street • Raleigh, North Carolina 27604
Division of Solid Waste Management

James B. Hunt, Jr., Governor

Telephone 919-733-2178

Jonathan B. Howes, Secretary

March 10, 1993

Mr. Steve Pegg
Director of Employee Relations
Asheville Dyeing and Finishing
Warren Wilson College Road
Swannanoa, North Carolina 28778

Reference: Former Hazardous Waste Underground Storage Tank
Certification of Closure
NCD 070 619 663

Dear Mr. Pegg:

The Hazardous Waste Section received certifications of closure from Asheville Dyeing and Finishing Company and the independent professional engineer on December 11, 1992. These certifications stated that the closure activities for the former hazardous waste underground storage tank were completed according to the approved closure plan. Additionally, this office conducted a closure inspection on October 29, 1992 and found Asheville Dyeing and Finishing Company to be in compliance with the approved closure plan.

Your certifications of closure are hereby accepted.

A copy of this letter will be forwarded to the Waste Management Branch, who will address details concerning financial assurance for closure under a separate letter.

Asheville Dyeing and Finishing Company should implement the approved post-closure plan for the former hazardous waste underground storage tank.

Mr. Steve Pegg
March 10, 1993
Page 2

If you have any questions, please contact Rob McDaniel at (919) 733-2178.

Sincerely,

A handwritten signature in cursive script, appearing to read "W. F. Hamner", written in dark ink.

William F. Hamner, Ph.D., Head
Permitting Branch

WFH/RCM/9.WP3

cc: G. Alan Farmer, US EPA, Region IV
James A. Carter
Jenny Lopp
R. James Edwards
Spring Allen
Gray B. Stephens
Yvonne Bailey
Robert C. McDaniel



File: C
Asheville Dyeing
and Finishing
NCD 070 619663

57

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

William L. Meyer
Director

December 17, 1992

Mr. Steve Pegg
Director of Employee Relations
Asheville Dyeing and Finishing
Warren Wilson College Road
Swannanoa, North Carolina 28778

Reference: Receipt of Closure Certification
Former Hazardous Waste Underground Storage Tank
NCD 070 619 663

Dear Mr. Pegg:

The Hazardous Section has received Asheville Dyeing and Finishing's closure certification, dated December 11, 1992, for the closure of the former underground hazardous waste tank. The survey plat completed by a registered surveyor was submitted on December 16, 1992. A review of these items will be completed as soon as possible.

If you have any questions, please contact Rob McDaniel at (919) 733-2178.

Sincerely,


Jerome H. Rhodes, Chief
Hazardous Waste Section

cc: G. Alan Farmer, US EPA, Region IV
William F. Hamner
James A. Carter
Spring Allen
Gray Stephens
Yvonne Bailey
Robert C. McDaniel



Asheville Dyeing
and Finishing
NCD 070 619 663

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management

54

James G. Martin, Governor
William W. Cobey, Jr., Secretary

December 15, 1992

William L. Meyer
Director

Mr. Steve Pegg
Director of Employee Relations
Asheville Dyeing and Finishing
Warren Wilson College Road
Swannanoa, North Carolina 28778

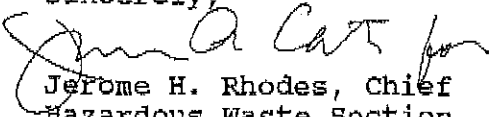
Reference: Modification of The Post-Closure Plan
Former Hazardous Waste Underground Storage Tank
NCD 070 619 663

Dear Mr. Pegg:

This letter is to notify Asheville Dyeing and Finishing that the request to modify the post-closure plan for the former underground hazardous waste tank, dated October 30, 1992, has been reviewed and a public notice of the post-closure plan was placed in The Asheville Citizen Times on November 12, 1992. A comment period of thirty (30) days has passed without any comments. The approval of this modification is therefore granted. Asheville Dyeing and Finishing should consolidate all the portions of the revised post-closure plan into one concise plan to prevent any possible confusion over the approved plan.

If you have any questions, please contact Rob McDaniel at (919) 733-2178.

Sincerely,


Jerome H. Rhodes, Chief
Hazardous Waste Section

JHR/RCM/187

cc: G. Alan Farmer, US EPA, Region IV
William F. Hamner
James A. Carter
Spring Allen
Gray Stephens
Yvonne Bailey
Robert C. McDaniel

ASHEVILLE CITIZEN-TIMES PUBLISHING COMPANY

File Closure
Asheville Dyeing
and Finishing
NCD 070 619 663

ASHEVILLE NORTH CAROLINA 28802

AFFIDAVIT OF PUBLICATION

53

BUNCOMBE COUNTY
NORTH CAROLINA

ss.

NOTICE FOR MODIFICATION OF POST-CLOSURE PLAN OF HAZARDOUS WASTE MANAGEMENT UNIT

Asheville Dyeing and Finishing, located in Swannanoa, North Carolina, proposes to modify their existing hazardous waste post-closure plan to relocate four (4) ground water monitoring wells to be sampled on a routine basis throughout the post-closure care period. This modification is being reviewed by the North Carolina Department of Environment, Health, and Natural Resources. Within thirty (30) days of the date of publication of this notice, any person may submit written comment and request modification of the proposal or request a hearing.

A copy of proposed modification to the post-closure plan can be reviewed during office hours (9:00 a.m. to 4:00 p.m.) Monday through Friday at the Hazardous Waste Section, 401 Oberlin Road, Suite 150, Raleigh, North Carolina 27605. Any person with questions or comments regarding this modification of the post-closure plan should contact Robert McDaniel in Raleigh at (919) 733-2178.

November 12, 1992
(1478)

Before the undersigned, a Notary Public of said County and State, duly commissioned, qualified, and authorized by law to administer oaths, personally

appeared Mischelle Nix

Who, being first duly sworn, deposes and says: that he (she) is

Legal Advertising Billing Clerk

(owner, partner, publisher, or other officer or employee authorized to make this affidavit)

of ASHEVILLE CITIZEN-TIMES COMPANY,
(Name of Publishing Concern)

engaged in the publication of a newspaper known as

The Asheville Citizen Times

(name of Newspaper)

published, issued, and entered as second class mail in the City of Asheville, in said County and State; that he (she) is authorized to make this affidavit and sworn statement; that the notice or other legal advertisement, a true copy of

which is attached hereto, was published in

The Asheville Citizen Times

(name of Newspaper)

on the following dates

November 12, 1992

and that the said newspaper in which said notice, paper, document, or legal advertisement was published was, at the time of each and every publication, a newspaper meeting all of the requirements and qualifications of Section 1-597 of the General Statutes of North Carolina and was a qualified newspaper within the meaning of Section 1-597 of the General Statutes of North Carolina.

This 12 day of November 19 92

Mischelle Nix

(Signature of person making affidavit)

Sworn to and subscribed before me.

this 12 day of November 19 92

Joyce B. Cole

(Notary Public)

My Commission expires

10-24-96



SO *File*
Asheville Dyeing
and Finishing
NCD 070 619 663

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management

James G. Martin, Governor
William W. Cobey, Jr., Secretary

November 5, 1992

William L. Meyer
Director

Mr. Steve Pegg
Director of Employee Relations
Asheville Dyeing and Finishing
Warren Wilson College Road
Swannanoa, North Carolina 28778

Reference: Receipt of Modification to Post-Closure Plan
Former Hazardous Waste Underground Storage Tank
NCD 070 619 663

Dear Mr. Pegg:

This letter acknowledges the receipt on November 4, 1992 of six (6) copies of the Modification to the Post-Closure Plan, dated October 27, 1992, for the former underground hazardous waste storage tank for Asheville Dyeing and Finishing. The requested modification to the post-closure plan, to analyze ground water samples from monitoring wells MW-2, MW-12, MW-12d, and MW-13, will be public noticed and reviewed as soon as possible.

If you have any questions, please contact Robert McDaniel at (919) 733-2178.

Sincerely,

James A. Carter
Unit Supervisor
Permitting Branch
Hazardous Waste Section

JAC/RCM/169

cc: Richard Campbell, US EPA, Region IV
William F. Hamner
Spring Allen
Gray Stephens
Yvonne C. Bailey
Robert C. McDaniel



1C
Asheville Dyeing
and Finishing
NCD 070 619 663
45

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management

James G. Martin, Governor
William W. Cobey, Jr., Secretary

September 15, 1992

William L. Meyer
Director



Mr. Steve Pegg
Director of Employee Relations
Asheville Dyeing and Finishing
Warren Wilson College Road
Swannanoa, North Carolina 28778

Reference: Receipt of Modified Closure and Post-Closure Plans
Former Hazardous Waste Underground Storage Tank
NCD 070 619 663

Dear Mr. Pegg:

This letter acknowledges the receipt on September 8, 1992 of six (6) copies of the former underground hazardous waste storage tank modified Post-Closure Ground Water Sampling and Analysis Plan and the Addendum of Closure/Post-Closure Plan for Asheville Dyeing and Finishing. The Hazardous Waste Section does not understand the purpose of these plans and does not consider the plans to be valid additions or modifications to the approved closure and post-closure plans, dated March 31, 1992.

The September 8, 1992 submittal does not include all the modifications specified in the July 8, 1992 letter from the Hazardous Waste Section which formally approved the closure and post-closure plans. The approved post-closure plan, dated March 31, 1992, specifies that three down gradient ground water monitoring wells (MW-12, MW-13, and MW-14) would be located immediately down gradient of the former underground hazardous waste storage tank (Section 3.10.6 and Figure 3). The Addendum of Closure/Post-Closure Plans states that monitoring wells MW-12, MW-12d, and MW-13 will be monitored during the post-closure care period. These locations are not immediately down gradient of the unit and MW-13 is not in the same location as it is in the approved post-closure plan. The approved post-closure plan also stated that the background ground water monitoring well would be MW-1, however, the Addendum of Closure/Post-Closure Plans, dated September 2, 1992, states that MW-2 will be the background well.

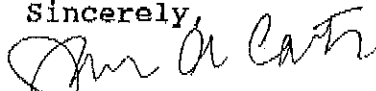
Mr. Steve Pegg
September 15, 1992
Page 2

The September 8, 1992 submittal does not specify that if one of the down gradient ground water monitoring wells is determined not to be located down gradient of the former underground hazardous waste tank, that another ground water monitoring well must be installed immediately down gradient of the former underground hazardous waste tank, in accordance with the July 8, 1992 post-closure plan approval letter.

The Closure/Post-Closure Plan, dated March 31, 1992, along with the July 8, 1992 approval letter of the plans, constitute the approved closure and post-closure plans. Asheville Dyeing and Finishing must have initiated the implementation of the approved closure and post-closure plans upon receipt of the July 8, 1992 approval letter.

If you have any questions, please contact Robert McDaniel at (919) 733-2178.

Sincerely,



James A. Carter
Environmental Supervisor
Hazardous Waste Section

JAC/RCM/163-164

cc: Richard Campbell, US EPA, Region IV
William F. Hamner
Spring Allen
Gray Stephens
Yvonne C. Bailey
Robert C. McDaniel



Asheville Dyeing
and Finishing
NCD 070 619 663

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management

44

James G. Martin, Governor
William W. Cobey, Jr., Secretary

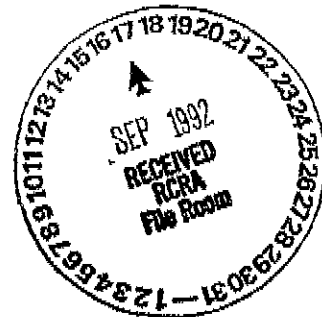
September 11, 1992

William L. Meyer
Director

Mr. G. Alan Farmer, Chief
RCRA Branch
Waste Management Division
US EPA, Region IV
345 Courtland Street, NE
Atlanta, Georgia 30365

Attention: Mr. Richard Campbell

Reference: Closure and Post-Closure Plans
Asheville Dyeing and Finishing
Swannanoa, North Carolina
NCD 070 619 663



Dear Mr. Farmer:

Enclosed is a copy of the closure plan and the post-closure plan for the former hazardous waste tank area at Asheville Dyeing and Finishing located in Swannanoa, North Carolina. It is unclear why these plans were submitted since the closure and post-closure plans have been approved and should have been initiated. The Hazardous Waste Section is responding to Asheville Dyeing and Finishing to clarify that the September 8, 1992 submittals are not valid.

If you have any questions, please contact Rob McDaniel at (919) 733-2178.

Sincerely

Jerome H. Rhodes
Jerome H. Rhodes, Chief
Hazardous Waste Section

JHR/RCM/162

Enclosure

cc: William F. Hamner
James A. Carter
Robert C. McDaniel



C.
Asheville Dyeing
and Finishing
NCD 070619663

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management

(42)

James G. Martin, Governor
William W. Cobey, Jr., Secretary

July 8, 1992

William L. Meyer
Director

Mr. Steve Pegg
Director of Employee Relations
Asheville Dyeing and Finishing
Warren Wilson College Road
Swannanoa, North Carolina 28778

Re: Closure and Post-Closure Plans
Former Underground Hazardous Waste Tank
Asheville Dyeing and Finishing
NCD 070 619 663

Dear Mr. Pegg:

This letter is to notify Asheville Dyeing and Finishing that the closure and post-closure plans, for the former underground hazardous waste tank, dated March 31, 1992 and the addendum dated May 11, 1992, have been reviewed and a public notice of the plans was placed in the Asheville Citizen on May 9, 1992. A comment period of thirty (30) days has passed without any comments. The Hazardous Waste Section grants final approval of the plans with the following modifications:

Closure Plan

Section 2.2.3.5 Permeability Standard

Asheville Dyeing and Finishing must submit a plan to determine the permeability of the natural subsoils underlying the former underground hazardous waste tank. Once the permeability of the natural subsoils has been determined, the results must be submitted to the Hazardous Waste Section.

Post-Closure Plan

The Post-Closure Plan must state that the ground water monitoring wells will be monitored throughout the post-closure care period. The correct locations of these ground water monitoring wells must be shown on site maps. These modifications must be made in the post-closure plan and the ground water sampling and analysis plan.

Ground water monitoring wells MW-12, MW-13, and MW-14 must be located immediately down gradient of the former underground hazardous waste tank. If one of these ground water monitoring wells is determined not to be down gradient of the former underground hazardous waste tank, another ground water monitoring well must be installed immediately down gradient of the former underground hazardous waste tank.

Appendix C Ground Water Sampling and Analysis Plan

Section III. Water-Level Monitoring

The Water-Level Monitoring Section must be amended to include the following:

- a. A statement specifying the measuring point for the determination of water level measurements for each ground water monitoring well (ie., top of the north side of the inner casing, etc.);
- b. A statement indicating water level measurements will be obtained from all ground water monitoring wells and piezometers at Asheville Dyeing and Finishing;
- c. A statement specifying that monitoring wells with sealing caps on the inner casing will have the caps removed for a sufficient time, prior to obtaining water level measurements, to allow for equilibration of the water in the well.

This letter must be acknowledged as part of the closure plan in the closure certifications for the closure of the former underground hazardous waste tank area to be submitted to the Hazardous Waste Section. If you have any questions, please contact Robert McDaniel at (919) 733-2178.

Sincerely,


Jerome H. Rhodes, Chief
Hazardous Waste Section

JHR/RCM/148-149

cc: G. Alan Farmer, US EPA, Region IV
George T. Everett, DEM
William F. Hamner
James A. Carter
Spring Allen
Gray Stephens
Yvonne Bailey
Robert C. McDaniel

Beth Hartzell

*File: Closure
Asheville Dyeing and
Finishing
NCD 070 619 663*

MAY 29 1992

58

WOMBLE CARLYLE SANDRIDGE & RICE
800 WACHOVIA BUILDING
RALEIGH, NORTH CAROLINA 27601

CHARLOTTE OFFICE
3300 ONE FIRST UNION CENTER
301 SOUTH COLLEGE STREET
CHARLOTTE, NC 28202-6028
TELEPHONE (704) 331-4900
TELECOPY (704) 331-4955

MAILING ADDRESS

POST OFFICE BOX 831
RALEIGH, NORTH CAROLINA 27602
TELEPHONE (919) 755-2100
TELECOPY (919) 755-2150
TELEX 806498

WINSTON-SALEM OFFICES
1600 ONE TRIAD PARK
WINSTON-SALEM, NC 27102
2400 WACHOVIA BUILDING
POST OFFICE DRAWER 84
WINSTON-SALEM, NC 27102
TELEPHONE (919) 721-3600
OTF TELECOPY (919) 721-3660
WACHOVIA TELECOPY (919) 721-3597
TELEX 806498

YVONNE C. BAILEY
(919) 755-2129

May 22, 1992

Mr. Jerome H. Rhodes
Chief, Hazardous Waste Section
Division of Solid Waste Management
Department of Environment, Health,
and Natural Resources
Post Office Box 27687
401 Oberlin Road
Raleigh, NC 27611-7687

Via Hand Delivery

Re: Closure/Post-Closure Plan
Former Underground Hazardous Waste Tank
Asheville Dyeing and Finishing Facility
NCD-070 619 663, Swannanoa, North Carolina

Dear Jerry:

Enclosed please find six copies of revised Appendix B for the above-referenced plan. The cost estimate for post-closure was recalculated based upon semi-annual sampling for the years 2 through 30. The original cost estimate assumed quarterly sampling for the entire 30 year period, which was not consistent with the provisions in the post-closure plan.

If you have any questions, do not hesitate to call me.

Truly yours,

Yvonne C. Bailey
Yvonne C. Bailey

Enclosures (6)

cc: Jacob Hollander, Esq.
Steve Pegg
R. Howard Grubbs, Esq. (w/out enclosure)
James A. Carter (w/out enclosure)
Bob Glaser (w/out enclosure)
Robert C. McDaniels (w/out enclosure)
Jennie Weaver Lopp
Kirk Pollard, Aquaterra, Inc.

	Unit	Number	Unit Cost (\$)	Cost (\$)
5. Place Cap				
Labor				
-Site/Safety Manager	Hr	6	\$60	\$360
-Technician	Hr	6	\$30	\$180
-Equipment Operator	Hr	6	\$45	\$270
Fuel/Materials	Ea	1	\$100	\$100
Two-foot Compacted Clay	CY	15	\$8	\$120
Compaction Tests	Ea	4	\$50	\$200
Topsoil	CY	4	\$10	\$40
Seed/Mulch	LS	1	\$200	\$200
6. Dispose of Contaminated Soil and Piping (Labor for loading contaminated soil included above)				
Transportation	LD	4	\$1,200	\$4,800
Disposal (50 CY at 15% expansion, 1.4 tons/CY)	TN	80	\$250	\$20,125
7. Decontamination				
Labor				
-Technician	Hr	6	\$30	\$180
Pressure Washer	Wk	1	\$250	\$250
Polyethylene	Ea	2	\$50	\$100
Supplies (misc.)	Ea	1	\$200	\$200
8. Health & Safety Equipment				
Protective Clothing	M-Dy	2	\$75	\$150
Vapor Monitoring	Wk	1	\$300	\$300
Supplies (misc.)	Ea	1	\$200	\$200
9. Other Direct Costs				
Project Vehicle	Wk	1	\$250	\$250
Per Diem	M-Dy	10	\$75	\$750
10. Demobilization				
Labor				
-Site/Safety Manager	Hr	4	\$60	\$240
-Technician	Hr	4	\$30	\$120
-Equipment Operator	Hr	4	\$45	\$180

	Unit	Number	Unit Cost (\$)	Cost (\$)
11. Closure Certification				
Labor				
-Registered Engineer	Hr	40	\$100	\$4,000
-Clerical	Hr	16	\$30	\$480
Other Direct Costs				
-Car Rental	Wk	1	\$250	\$250
-Per Diem	M-Dy	5	\$75	\$375
-Telephone, copies, etc.	Ea	1	\$100	\$100
12. Notice in Deed to Property				
Labor				
-Registered Engineer	Hr	2	\$100	\$200
-Project Engineer	Hr	8	\$60	\$480
-Clerical	Hr	8	\$30	\$240
Surveyor	Dy	1	\$600	\$600
Other Direct Costs				
-Car Rental	Dy	1	\$75	\$75
-Per Diem	M-Dy	1	\$75	\$75
-Telephone, copies, etc.	Ea	1	\$100	\$100

B. Installation of Monitoring Wells

1. Mobilization/Demobilization	LS	1	\$1,000	\$1,000
2. Installation				
Labor				
-Field Geologist	Hr	40	\$50	\$2,000
Other Direct Costs				
-Car Rental	Wk	1	\$250	\$250
-Per Diem	M-Dy	5	\$75	\$375
-Telephone, copies, etc.	Ea	1	\$100	\$100
Drilling	LS	1	\$4,500	\$4,500
Surveyor	Dy	1	\$600	\$600

GRAND TOTALS

SUBTOTAL	\$53,285
PROJECT MANAGEMENT @ 10%	\$5,329
PROJECT ADMINISTRATION @ 10%	\$5,329
SUBTOTAL	\$63,942
CONTINGENCY @ 10%	\$6,394
TOTAL CLOSURE COST	\$70,336

POST-CLOSURE COSTS YEAR 1

	Unit	Number	Unit Cost (\$)	Cost (\$)
1. Inspections				
Labor				
-Project Engineer (2 hours per quarter)	Hr	8	\$60	\$480
Other Direct Costs				
-Telephone, copies, etc.	Ea	1	\$50	\$50
2. Recordkeeping				
Labor				
-Project Engineer (2 hours per quarter)	Hr	8	\$60	\$480
-Clerical (4 hours per quarter)	Hr	16	\$30	\$480
Other Direct Costs				
-Telephone, copies, etc.	Ea	4	\$25	\$100
3. Groundwater Monitoring				
Labor				
-Geologist (4 hours per quarter)	Hr	120	\$45	\$5,400
-Technician (20 hours per quarter)	Hr	80	\$30	\$2,400
-Clerical (4 hours per quarter)	Hr	16	\$30	\$480
Laboratory				
- VOC 8240	Ea	16	\$180	\$2,880
- Chromium	Ea	16	\$15	\$240
- Cadmium (4 Samples/qtr.)	Ea	16	\$15	\$240
- SVOC 8270 (1 Sample/Yr)	Ea	4	\$375	\$1,500
- 20% QA/QC SAMPLES	Yr	1	20%	\$972
Other Direct Costs				
-Car Rental	Dy	8	\$75	\$600
-Per Diem	M-Dy	8	\$75	\$600
-Telephone, copies, etc.	Ea	4	\$100	\$400
-Equipment	Dy	8	\$60	\$480
-Supplies	Ea	4	\$300	\$1,200
4. Totals				
		FIRST YEAR TOTAL		\$18,982

POST-CLOSURE COSTS YEARS 2-30

	Unit	Number	Unit Cost (\$)	Cost (\$)
1. Inspections				
Labor				
-Project Engineer (2 hours per semester)	Hr	4	\$60	\$240
Other Direct Costs				
-Telephone, copies, etc.	Ea	1	\$50	\$50
2. Recordkeeping				
Labor				
-Project Engineer (2 hours per semester)	Hr	4	\$60	\$240
-Clerical (4 hours per semester)	Hr	8	\$30	\$240
Other Direct Costs				
-Telephone, copies, etc.	Ea	2	\$25	\$50
3. Groundwater Monitoring				
Labor				
-Geologist (4 hours per semester)	Hr	60	\$45	\$2,700
-Technician (20 hours per semester)	Hr	40	\$30	\$1,200
-Clerical (4 hours per semester)	Hr	8	\$30	\$240
Laboratory				
- VOC 8240	Ea	8	\$180	\$1,440
- Chromium	Ea	8	\$15	\$120
- Cadmium (4 Samples/Sem.)	Ea	8	\$15	\$120
- SVOC 8270 (1 Sample/Yr)	Ea	4	\$375	\$1,500
-20% QA/QC Samples	Ea	1	20%	\$636
Other Direct Costs				
-Car Rental	Dy	4	\$75	\$300
-Per Diem	M-Dy	4	\$75	\$300
-Telephone, copies, etc.	Ea	2	\$100	\$200
-Equipment	Dy	4	\$60	\$240
-Supplies	Ea	2	\$300	\$600

4. Totals

ANNUAL SUBTOTAL (YEARS 2-30) \$10,416

YEARS 2-30 TOTAL \$302,064

FIRST YEAR TOTAL \$18,982

30 YEAR GRAND TOTAL \$321,046



Asheville Dyeing
and Finishing
NCD 070 619 663

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management

34

James G. Martin, Governor
William W. Cobey, Jr., Secretary

May 8, 1992

William L. Meyer
Director

Mr. Steve Pegg
Director of Employee Relations
Asheville Dyeing and Finishing
Warren Wilson College Road
Swannanoa, North Carolina 28778

Reference: Closure and Post-Closure Plans
Former Underground Hazardous Waste Tank
Asheville Dyeing and Finishing
NCD 070 619 663


Dear Mr. Pegg:

The Hazardous Waste Section has determined that your closure and post-closure plans, dated March 31, 1992, constitutes adequate closure and post-closure plans for the former underground hazardous waste tank.

A public notice concerning closure and post-closure of the unit will appear in the Asheville Citizen on Saturday, May 9, 1992. A public comment period will run for thirty (30) days after the appearance of the notice. A public hearing will be held, if requested. Should a public hearing be held, a public notice will be made at least thirty (30) days in advance of such hearing.

If you have any questions, please contact Rob McDaniel at (919) 733-2178.

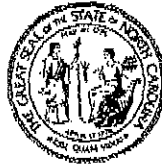
Sincerely,


William F. Hamner, Ph.D., Head
Permitting Branch
Hazardous Waste Section

WFH/RCM/106

cc: G. Alan Farmer, US EPA, Region IV
R. Howard Grubbs
George T. Everett, DEM
James A. Carter

Spring Allen
Gray Stephens
Robert C. McDaniel



Asheville Dyeing
and Finishing
NCD 070 619 663

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

April 9, 1992

William L. Meyer
Director

Mr. Steve Pegg
Director of Employee Relations
Asheville Dyeing and Finishing
Warren Wilson College Road
Swannanoa, North Carolina 28778


Reference: Receipt of Closure and Post-Closure Plans
Former Hazardous Waste Underground Storage Tank

Dear Mr. Pegg:

This letter acknowledges the receipt on April 3, 1991 of six (6) copies of the former hazardous waste underground storage tank closure and post-closure plans for Asheville Dyeing and Finishing. A review of these plans will be completed as soon as possible.

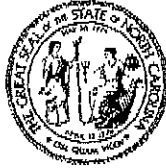
If you have any questions, please contact Robert McDaniel at
(919) 733-2178.

Sincerely,


James A. Carter
Environmental Supervisor
Hazardous Waste Section

JAC/RCM/92

cc: Richard Campbell, US EPA, Region IV
William F. Hamner
Spring Allen
R. Howard Grubbs
Robert C. McDaniel



State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

April 9, 1992

William L. Meyer
Director

Mr. Alan Farmer, Chief
RCRA Branch
Waste Management Division
US EPA, Region IV
345 Courtland Street, NE
Atlanta, Georgia 30365

Attention: Mr. Richard Campbell


Reference: Asheville Dyeing and Finishing
Revised Closure and Post-Closure Plans
Swannanoa, North Carolina
NCD 070 619 663

Dear Mr. Farmer:

Enclosed are the revised closure and post-closure plans for the former hazardous waste underground storage tank at Asheville Dyeing and Finishing, located in Swannanoa, North Carolina.

If you have any comments or questions, please contact Rob McDaniel at (919) 733-2178.

Sincerely,


Jerome H. Rhodes, Chief
Hazardous Waste Section

JHR/RCM/92

Enclosure

cc: William F. Hamner
James A. Carter
Robert C. McDaniel



State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

Asheville Dyeing and
Finishing

KCD 070 619 663

(27)

James G. Martin, Governor
William W. Cobey, Jr., Secretary

March 3, 1992

William L. Meyer
Director

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Steve Pegg
Director of Employee Relations
Asheville Dyeing and Finishing
Warren Wilson College Road
Swannanoa, North Carolina 28778


Reference: Closure and Post-Closure Plans
Former Hazardous Waste Underground Storage Tank

Dear Mr. Pegg:

The Hazardous Waste Section has completed its review of Asheville Dyeing and Finishing's closure and post-closure plans for the former hazardous waste underground storage tank, submitted to the Hazardous Waste Section on November 22, 1991. The Hazardous Waste Section's comments on the closure and post-closure plans are attached. Asheville Dyeing and Finishing must submit six (6) copies of the revised closure and post-closure plans for the former hazardous waste underground storage tank within thirty (30) days of the receipt of this letter.

If you have any questions, please contact Robert McDaniel at (919) 733-2178.

Sincerely,


James A. Carter
Environmental Supervisor
Hazardous Waste Section

JAC/RCM/80

Enclosure

cc: A. Alan Farmer, US EPA, Region IV
William F. Hamner
Gray Stephens
Spring Allen
Robert C. McDaniel

**ASHEVILLE DYEING AND FINISHING
COMMENTS ON THE CLOSURE AND POST-CLOSURE PLANS
NCD 070 619 663**

SECTION 2 CLOSURE PLAN REQUIREMENTS

Section 2.2.1.1. Asheville Dyeing and Finishing should revise this section to state that soil samples will be collected and analyzed for constituents of concern at any suspected leaks in the pipe leading to the former underground waste tank.

SECTION 3 GENERAL POST-CLOSURE REQUIREMENTS

Section 3.10.6. The ground water monitoring wells should be located immediately downgradient of the hazardous waste management unit. The location of the ground water monitoring wells proposed by Asheville Dyeing and Finishing are as much as 190 to 200 feet away and may not be downgradient of the unit. Asheville Dyeing and Finishing must install a ground water monitoring well nest immediately downgradient of the former underground waste tank.

APPENDIX C GROUND WATER SAMPLING AND ANALYSIS PLAN

Section II. Ground Water Sample Collection Log Book

The field measurements (pH, specific conductance, temperature, etc.) should be documented for each monitoring well in the log book.

Section III. Water Level Monitoring

Static water level measurements from all ground water monitoring wells must be obtained prior to beginning the well purging procedure at any monitoring well.

Ground water levels should be obtained from all existing monitoring wells on site, not just from the wells included in the monitoring program.

Section IV. Ground Water Sample Collection Procedures

Well Sampling Procedures

A description of the well sampling procedure should include:

1. The field measurements (pH, specific conductance, temperature, etc.) obtained.

2. The order in which the sample containers are filled.
3. The type and number of GA/QC samples (ie., field blanks, trip blanks, equipment blanks, etc.).

Section VII. Schedule For Sample Reporting

The dates (specific months during the year) for ground water sample collection.

RCM/81-82



Asheville Dyeing
and Finishing
NCD 070 619 663

21

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

November 25, 1991

William L. Meyer
Director

Ms. Camilla B. Warren, Chief
NC/SC Unit
Waste Engineering Section
US EPA, Region IV
345 Courtland Street, NE
Atlanta, Georgia 30365

Reference: Asheville Dyeing and Finishing
Revised Closure and Post-Closure Plans
Swannanoa, North Carolina
NCD 070 619 663

Dear Ms. Warren:

Enclosed are the revised closure and post-closure plans for the
the former hazardous waste underground storage tank at Asheville
Dyeing and Finishing located in Swannanoa, North Carolina.

If you have any comments or questions, please contact Robert McDaniel
at (919) 733-2178.

Sincerely,

Jerome H. Rhodes
Jerome H. Rhodes, Chief
Hazardous Waste Section

JHR/RCM/mb/73

Enclosure

cc: William F. Hamner
James A. Carter
Robin Pursell
Robert C. McDaniel



State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

Asheville Dyeing and
Finishing
NCD 070 619 663

19

James G. Martin, Governor
William W. Cobey, Jr., Secretary

November 5, 1991

William L. Meyer
Director

Mr. Steve Pegg
Director of Employee Relations
Asheville Dyeing and Finishing
Warren Wilson College Road
Swannanoa, North Carolina 28778


Reference: Extension Request For Closure and Post-Closure Plans

Dear Mr. Pegg:

The Hazardous Waste Section has received the October 18, 1991 letter from Asheville Dyeing and Finishing's attorney requesting, on your behalf, an extension for the submittal of the revised closure and post-closure plans for the former hazardous waste underground storage tank. An extension is granted to November 22, 1991 for the submittal of the revised closure and post-closure plans.

If you have any questions, please contact Robert McDaniel at (919) 733-2178.

Sincerely,


William F. Hamner, Ph.D., Head
Permitting Branch
Hazardous Waste Section

WFH/RCM/mb/70

cc: Camilla B. Warren, US EPA, Region IV
James A. Carter
Robin Pursell
R. Howard Grubbs
Robert Glaser
Robert C. McDaniel



State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

Asheville Dyeing &
Finishing
NCP 070 619 663

14

James G. Martin, Governor
William W. Cobby, Jr., Secretary

William L. Meyer
Director

August 19, 1991

CERTIFIED MAIL
RETURN RECEIPT REQUESTED


Mr. Steve Pegg
Director of Employee Relations
Asheville Dyeing and Finishing
Warren Wilson College Road
Swannanoa, North Carolina 28778

Reference: Closure and Post-Closure Plans
Former Hazardous Waste Underground Storage Tank

Dear Mr. Pegg:

The Hazardous Waste Section has completed its review of Asheville Dyeing and Finishing's closure and post-closure plans for the former hazardous waste underground storage tank, submitted to the Hazardous Waste Section on May 9, 1991. The Hazardous Waste Section's comments on the closure and post-closure plans are attached. Asheville Dyeing and Finishing must submit six (6) copies of the revised closure and post-closure plans for the former hazardous waste underground storage tank within thirty (30) days of the receipt of this letter.

If you have any questions, please contact Robert McDaniel at (919) 733-2178.

Sincerely,

James A. Carter
Environmental Supervisor
Hazardous Waste Section

JAC/RCM/mb/56

Enclosure

cc: Camilla Warren, US EPA, Region IV
William F. Hamner
Robin Pursell
Gray Stephens
Robert C. McDaniel

**ASHEVILLE DYEING AND FINISHING
COMMENTS ON THE CLOSURE AND POST-CLOSURE PLANS**

SECTION 2 CLOSURE PLAN REQUIREMENTS

Section 2.2.1.1. Discuss, in detail, the soil sample collection methods and the constituents to be analyzed in order to determine the dimensions of the tank pit and piping area.

Section 2.2.3. The slope of the final cap should be between three and five per cent to prevent ponding of rainwater on the cap.

Describe, in greater detail, the design of the final cap and the construction methods which will be used to install the final cover.

The top soil or vegetation cover of the final cover should consist of at least twenty-four (24) inches of material. Beneath the vegetation layer should be a drainage layer, twelve (12) inches thick, to minimize water infiltration into the clay layer.

SECTION 3 GENERAL POST-CLOSURE REQUIREMENTS

Section 3.8 The Ground Water Sampling and Analysis Plan should be a part of the post-closure plan, separate from the ground water assessment plan. The Sampling and Analysis Plan must be revised to include the items in Attachment A.

Section 3.10.1 The condition of the vegetative cover on the final cap should be inspected periodically, especially during dry periods, to ensure that the vegetative cover is sufficient to prevent erosion of the cap. If the vegetative cover is affected during the dry periods, Asheville Dyeing and Finishing should irrigate the vegetative cover as needed.

Section 3.10.6 Ground water monitoring wells immediately downgradient of the hazardous waste unit should be included in the monitoring system.

The Hazardous Waste Section suggests an alternative ground water monitoring program. On a quarterly basis, it is recommended that monitoring wells: MW-1, MW-4, MW-4d, MW-6, MW-6d, MW-12, MW-12d, and ground water monitoring wells immediately downgradient of the hazardous waste

unit, be sampled for: chromium, cadmium, and volatile organic compounds. Additionally, on an annual basis, monitoring wells: MW-1, MW-4, MW-4d, MW-6, MW-6d, MW-9, MW-9d, MW-10, MW-10d, MW-11, MW-12, MW-12d, and ground water monitoring wells immediately down gradient of the hazardous waste management unit should be sampled for: chromium, cadmium, volatile organic compounds and semi-volatile organic compounds.

EXHIBIT A CLOSURE AND POST-CLOSURE COST ESTIMATES

The cost estimate for EPA Method 8240 appears to be low, Asheville Dyeing and Finishing should confirm this cost estimate with the laboratory Asheville Dyeing and Finishing intends to use for ground water sample analysis.

ATTACHMENT A
GROUND WATER SAMPLING AND ANALYSIS PLAN

I. Description of the Ground Water Monitoring System

The ground water sampling and analysis plan should include a description of the ground water monitoring system. The description of the ground water monitoring system should include the following :

- a. A description of site hydrogeologic conditions.
- b. The well completion reports for each well.
- c. A facility map (maximum scale: 1" = 200') identifying the ground water flow direction, plant building(s), waste management unit(s), monitoring wells and other pertinent features.
- d. The elevation of the top and bottom of the screen (to the nearest 0.01 foot) for each well.
- e. The elevation of the measuring point and land surface (to the nearest 0.01 foot) at each well.
- f. The identification of the measuring point for each well.

II. Ground Water Sample Collection Log Book

A logbook should be maintained at the facility documenting each sampling event. The following field observations should be documented in the logbook.

- a. Name(s) of the people present.
- b. Environmental conditions.
- c. Unusual site conditions (for example: damaged well casing, well cover was missing, etc.).
- e. The following items should be documented for each well:
 1. Equipment used for water level and well depth measurements.
 2. Elevation of the water level.
 3. Well purging time and date.
 4. Equipment used for purging.
 5. Sample collection time and date.
 6. Equipment used for sample collection.
 7. Types and number of sample containers filled at each well and any special handling procedures (i.e. preservation procedures, etc.).

III. Water Level Monitoring

The sampling and analysis plan should describe the water level monitoring procedure including:

- a. A statement specifying that static water level measurements from all wells are obtained prior to beginning the well purging procedure at any well (static water level measurements in this case are those measurements taken after the water in the well has been allowed to reach equilibrium or more than twenty-four (24) hours has passed since any water has been removed from or injected into the well, whichever is greater).
- b. A statement specifying that well depths are confirmed during each ground water monitoring event.
- c. A statement specifying that the well depth measurements are documented in the field logbook.
- d. A statement specifying that protective/nonreactive gloves will be worn throughout the water level monitoring procedure.
- e. A statement specifying measures to be taken to minimize contamination from contact with the ground surface (for example: a plastic apron placed on the ground surface around the ground water monitoring well).
- f. A statement indicating that water level measurements will be taken from the least contaminated to the most contaminated monitoring wells based on historical ground water quality data collected to date.

IV. Ground Water Sample Collection Procedure

A discussion of the well purging and sampling procedure should be included in the sampling and analysis plan. The description of the procedures should be as specific as possible and include a description of the equipment used at each well. A description of the equipment cleaning procedures and the frequency of cleaning should be included. Any specialized sample collection procedures should also be specified in the sampling and analysis plan.

- a. The description of the well purging procedure should specify:
 1. How the well purging equipment is used.
 2. Protective/nonreactive gloves are worn throughout the well purging procedure.
- b. A description of the well sampling procedure should include:
 1. The field measurement (pH, specific conductance, temperature, etc.) obtained.
 2. The order in which sample containers are filled.
 3. The type and number of sample containers used.
 4. The sample preservation procedures.

- c. Cleaning procedures for the purging and sampling equipment must be provided in greater detail. The Section recommends the following cleaning procedures.

Stainless Steel Equipment:

phosphate-free soap and tap water wash;
tap water rinse;
deionized or distilled water rinse;
isopropyl alcohol rinse;
deionized or distilled water rinse;
air dry; and
wrap equipment with material that is nonreactive with the equipment or the constituents of concern in the ground water prior to transport into the field.

Teflon Equipment:

phosphate-free soap and tap water wash;
tap water rinse;
10% nitric or 10% hydrochloric acid rinse;
deionized or distilled water rinse;
isopropyl alcohol rinse;
deionized or distilled water rinse;
air dry; and
wrap equipment with material that is nonreactive with the equipment or the constituents of concern in the ground water prior to transport into the field.

- d. A list of any specialized sample collection procedures should be included. For example: samples collected for volatile organic analyses should be collected in a glass bottle with a Teflon covered septum top. The samples should be collected with no headspace in order to prevent volatilization. Samples collected for volatile organics must not be filtered.
- e. A statement indicating measures to be taken to minimize contamination from contact with the ground surface during the ground water monitoring well purging and sampling procedures (for example: a plastic apron placed on the ground surface around the ground water monitoring well).
- f. A statement indicating that no headspace will be allowed in the volatile organic analysis containers.
- g. If the ground water samples collected for metal analyses are filtered, then an unfiltered ground water sample must also be analyzed for metals.

V. Chain of Custody

The sampling and analysis plan should include a more detailed description of the chain of custody procedure and a sample chain of custody form.

VI. Analytical Methods

The sampling and analysis plan must specify an EPA approved analytical method found in EPA publication SW-846 for each constituent specified in the sample collection schedule.

VII. Schedule for Sample Reporting

The sampling and analysis plan must include a schedule for the collection of ground water samples. The schedule must specify:

- a. The dates (specific months during the year) for sample collection.
- b. The wells to be sampled.
- c. The parameters to be analyzed.
- d. The dates (specify the number of days after sample collection) for submission of an analytical data.

8/19/91
RCM/57-62



Asheville Dyeing and
Finishing
NCD 070 619 663

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

May 28, 1991

William L. Meyer
Director

Mr. James H. Scarbrough, P.E., Chief
RCRA and Federal Facilities Branch
Waste Management Division
US EPA, Region IV
345 Courtland Street, NE
Atlanta, Georgia 30365

Attention: Ms. Camilla Warren

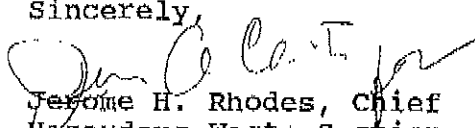
Reference: Closure and Post-Closure Plans
Asheville Dyeing and Finishing
Swannanoa, North Carolina
NCD 070619663

Dear Mr. Scarbrough:

Enclosed is a copy of the closure and post-closure plans for Asheville Dyeing and Finishing. This is a closure with waste in place for a former waste tetrachloroethylene tank.

If you have any comments or questions concerning the closure and post-closure plans, please contact Rob McDaniel at (919) 733-2178.

Sincerely,


Jerome H. Rhodes, Chief
Hazardous Waste Section

JHR/RCM/mb/45

Enclosure

cc: William F. Hamner
James A. Carter
Robert C. McDaniel